Peter James Murphy

List of Publications by Year
in descending order

73 papers	3,108 citations	218677 26 h-index	161849 54 g-index
74 all docs	74 docs citations	74 times ranked	3907 citing authors

#	Article	IF	Citations
1	Semi-metallic polymers. Nature Materials, 2014, 13, 190-194.	27.5	722
2	Polymeric Material with Metal-Like Conductivity for Next Generation Organic Electronic Devices. Chemistry of Materials, 2012, 24, 3998-4003.	6.7	224
3	Condensation and freezing of droplets on superhydrophobic surfaces. Advances in Colloid and Interface Science, 2014, 210, 47-57.	14.7	223
4	Pure silicon thin-film anodes for lithium-ion batteries: A review. Journal of Power Sources, 2019, 414, 48-67.	7.8	147
5	Surface treatments for controlling corrosion rate of biodegradable Mg and Mg-based alloy implants. Science and Technology of Advanced Materials, 2015, 16, 053501.	6.1	129
6	Recent advances in the synthesis of conducting polymers from the vapour phase. Progress in Materials Science, 2017, 86, 127-146.	32.8	115
7	The role of water in the synthesis and performance of vapour phase polymerised PEDOT electrochromic devices. Journal of Materials Chemistry, 2009, 19, 7871.	6.7	95
8	Vacuum vapour phase polymerization of high conductivity PEDOT: Role of PEG-PPG-PEG, the origin of water, and choice of oxidant. Polymer, 2012, 53, 2146-2151.	3.8	88
9	Structure-directed growth of high conductivity PEDOT from liquid-like oxidant layers during vacuum vapor phase polymerization. Journal of Materials Chemistry, 2012, 22, 14889.	6.7	84
10	Improved PEDOT Conductivity via Suppression of Crystallite Formation in Fe(III) Tosylate During Vapor Phase Polymerization. Macromolecular Rapid Communications, 2008, 29, 1503-1508.	3.9	82
11	High conductivity PEDOT resulting from glycol/oxidant complex and glycol/polymer intercalation during vacuum vapour phase polymerisation. Polymer, 2011, 52, 1725-1730.	3.8	73
12	High Conductivity PEDOT Using Humidity Facilitated Vacuum Vapour Phase Polymerisation. Macromolecular Rapid Communications, 2008, 29, 1403-1409.	3.9	72
13	Inkjet printing and vapor phase polymerization: patterned conductive PEDOT for electronic applications. Journal of Materials Chemistry C, 2013, 1, 3353.	5.5	56
14	Influence of PEGâ€‹<i>ran</i>â€PPG Surfactant on Vapour Phase Polymerised PEDOT Thin Films. Macromolecular Rapid Communications, 2009, 30, 1846-1851.	3.9	51
15	Enhancing the corrosion resistance of biodegradable Mg-based alloy by machining-induced surface integrity: influence of machining parameters on surface roughness and hardness. International Journal of Advanced Manufacturing Technology, 2017, 90, 2095-2108.	3.0	51
16	Vacuum vapour phase polymerised poly(3,4-ethyelendioxythiophene) thin films for use in large-scale electrochromic devices. Thin Solid Films, 2011, 519, 2544-2549.	1.8	47
17	Ultrathin Polymer Films for Transparent Electrode Applications Prepared by Controlled Nucleation. ACS Applied Materials & Interfaces, 2013, 5, 11654-11660.	8.0	43
18	Flexible Polymer-on-Polymer Architecture for Piezo/Pyroelectric Energy Harvesting. ACS Applied Materials & Interfaces, 2015, 7, 8465-8471.	8.0	41

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19	Doped and reactive silicon thin film anodes for lithium ion batteries: A review. Journal of Power Sources, 2021, 506, 230194.	7.8	40
20	Factors affecting the adhesion of microwave plasma deposited siloxane films on polycarbonate. Thin Solid Films, 2006, 500, 34-40.	1.8	34
21	Colouration efficiency measurements in electrochromic polymers: The importance of charge density. Electrochemistry Communications, 2007, 9, 2032-2036.	4.7	34
22	In-situ QCM-D analysis reveals four distinct stages during vapour phase polymerisation of PEDOT thin films. Polymer, 2010, 51, 1737-1743.	3.8	34
23	Metal-free oxygen reduction electrodes based on thin PEDOT films with high electrocatalytic activity. RSC Advances, 2014, 4, 9819.	3.6	34
24	Gel electrolytes with ionic liquid plasticiser for electrochromic devices. Electrochimica Acta, 2011, 56, 4408-4413.	5.2	33
25	Evidence for â€˜bottom upâ€™ growth during vapor phase polymerization of conducting polymers. Polymer, 2014, 55, 3458-3460.	3.8	32
26	The mechanism of conductivity enhancement in poly(3,4-ethylenedioxythiophene)â€“poly(styrenesulfonic) acid using linear-diol additives: Its effect on electrochromic performance. Thin Solid Films, 2008, 516, 7828-7835.	1.8	29
27	Measurement Protocols for Reporting PEDOT Thin Film Conductivity and Optical Transmission: A Critical Survey. Macromolecular Chemistry and Physics, 2011, 212, 2173-2180.	2.2	26
28	Vapor Phase Synthesis of Conducting Polymer Nanocomposites Incorporating 2D Nanoparticles. Chemistry of Materials, 2014, 26, 4207-4213.	6.7	26
29	Effect of oxidant on the performance of conductive polymer films prepared by vacuum vapor phase polymerization for smart window applications. Smart Materials and Structures, 2015, 24, 035016.	3.5	24
30	Hydrophilic Organic Electrodes on Flexible Hydrogels. ACS Applied Materials & Interfaces, 2016, 8, 974-982.	8.0	23
31	A Solid-State Nuclear Magnetic Resonance Study of Post-Plasma Reactions in Organosilicone Microwave Plasma-Enhanced Chemical Vapor Deposition (PECVD) Coatings. ACS Applied Materials & Interfaces, 2014, 6, 8353-8362.	8.0	21
32	Finite Element Analysis of Surface Integrity in Deep Ball-Burnishing of a Biodegradable AZ31B Mg Alloy. Metals, 2018, 8, 136.	2.3	21
33	Diffuse color patterning using blended electrochromic polymers for proofâ€ofâ€concept adaptive camouflage plaques. Journal of Applied Polymer Science, 2015, 132, .	2.6	19
34	Faradaic charge corrected colouration efficiency measurements for electrochromic devices. Electrochimica Acta, 2008, 53, 2250-2257.	5.2	18
35	Enhancing the morphology and electrochromic stability of polypyrrole via PEGâ€“PPGâ€“PEG templating in vapour phase polymerisation. European Polymer Journal, 2014, 51, 28-36.	5.4	18
36	Organic energy devices from ionic liquids and conducting polymers. Journal of Materials Chemistry C, 2016, 4, 1550-1556.	5.5	15

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37	Abrasion resistance of thin film coatings as measured by diffuse optical scattering. Surface and Coatings Technology, 2011, 206, 312-317.	4.8	14
38	Corrosion resistance of robust optical and electrical thin film coatings on polymeric substrates. Corrosion Science, 2013, 69, 406-411.	6.6	14
39	Oneâ€Step Fabrication of Nanocomposite Thin Films of PTFE in SiO<i>_x</i> for Repelling Water. Advanced Engineering Materials, 2015, 17, 474-482.	3.5	13
40	Ultrathin films of co-sputtered CrZrx alloys on polymeric substrates. Surface and Coatings Technology, 2012, 206, 3733-3738.	4.8	12
41	Direct Imaging of Mechanical and Chemical Gradients Across the Thickness of Graded Organosilicone Microwave PECVD Coatings. ACS Applied Materials & Interfaces, 2014, 6, 1279-1287.	8.0	12
42	First synthesis of 3- O -methyl-scyllo-inosamine, a natural product which favors the Rhizobiumâ€"Leguminosae symbiosis. Tetrahedron Letters, 2004, 45, 1461-1463.	1.4	11
43	Enhanced abrasion resistance of ultrathin reflective coatings on polymeric substrates: An improvement upon glass substrates. Wear, 2013, 297, 986-991.	3.1	11
44	Compressively Stressed Silicon Nanoclusters as an Antifracture Mechanism for High-Performance Lithium-Ion Battery Anodes. ACS Applied Materials & Interfaces, 2020, 12, 39195-39204.	8.0	11
45	Fabrication of robust solar mirrors on polymeric substrates by physical vapor deposition technique. Solar Energy Materials and Solar Cells, 2020, 209, 110476.	6.2	11
46	Atomic structure studies of chrome alloy coatings and their abrasion resistance. Surface and Coatings Technology, 2012, 206, 3645-3649.	4.8	10
47	Unusual Nature of Fingerprints and the Implications for Easy-to-Clean Coatings. Langmuir, 2016, 32, 619-625.	3.5	10
48	Packing density/surface morphology relationship in thin sputtered chromium films. Surface and Coatings Technology, 2016, 291, 286-291.	4.8	10
49	Etching and Deposition Mechanism of an Alcohol Plasma on Polycarbonate and Poly(Methyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf a:SiO_{<i>x</i>}C_{<i>y</i>}H_{<i>z</i>} Coating. Plasma Processes and Polymers, 2012, 9, 855-865.	3.0	9
50	Nanoporous Glass Films on Liquids. ACS Applied Materials & Interfaces, 2014, 6, 507-512.	8.0	9
51	The effect of block copolymer additives for a highly active polymeric metal-free oxygen reduction electrode. RSC Advances, 2016, 6, 28809-28814.	3.6	9
52	Influence of post-deposition moisture uptake in polycarbonate on thin film's residual stress short term evolution. Surface and Coatings Technology, 2016, 294, 210-214.	4.8	9
53	Metallic Adhesive Layers for Agâ€Based First Surface Mirrors. Advanced Engineering Materials, 2018, 20, 1800106.	3.5	9
54	Influence of Postsynthesis Heat Treatment on Vapor-Phase-Polymerized Conductive Polymers. ACS Omega, 2018, 3, 12679-12687.	3.5	9

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55	Hydroxyl Radical Etching Improves Adhesion of Plasmaâ€Deposited aâ€SiO_{<i>x</i>}C_{<i>y</i>}H_{<i>z</i>} Films on Poly(Methylmethacrylate). Plasma Processes and Polymers, 2012, 9, 398-405.	3.0	8
56	Manipulation of cluster formation through gas-wall boundary conditions in large area cluster sources. Surface and Coatings Technology, 2017, 314, 125-130.	4.8	8
57	Variations in graded organosilicone microwave PECVD coatings modify stress and improve the durability on plastic substrates. Surface and Coatings Technology, 2014, 259, 616-624.	4.8	7
58	Influence of Tetramethyldisiloxaneâ€Oxygen Mixtures on the Physical Properties of Microwave PECVD Coatings and Subsequent Postâ€Plasma Reactions. Plasma Processes and Polymers, 2015, 12, 555-563.	3.0	7
59	Postâ€polymerization surface segregation in thin PECVD siloxane films leading to a selfâ€regenerative effect. Plasma Processes and Polymers, 2017, 14, 1600233.	3.0	7
60	Market evaluation, performance modelling and materials solution addressing short wavelength discomfort glare in rear view automotive mirrors. Translational Materials Research, 2015, 2, 035002.	1.2	6
61	<scp>G</scp>rowth of Sputtered Nanocomposite Alloys on Polymeric Substrates: The Role of the Substrate's Mechanical Hardness. Advanced Engineering Materials, 2013, 15, 1076-1081.	3.5	5
62	Mesoporous Siloxane Films Through Thermal Oxidation of Siloxaneâ€“Carbon Nanocomposites. Advanced Engineering Materials, 2015, 17, 1547-1555.	3.5	5
63	Decoupling the effects of confinement and passivation on semiconductor quantum dots. Physical Chemistry Chemical Physics, 2016, 18, 19765-19772.	2.8	5
64	Clustered Outbreak of Adverse Reactions to a Salsa Containing High Levels of Sulfites. Journal of Food Protection, 1995, 58, 95-97.	1.7	4
65	Optical coatings for automotive applications: a case study in translating fundamental materials science into commercial reality. Translational Materials Research, 2014, 1, 025001.	1.2	4
66	Orbital hybridization, crystal structure and anomalous resistivity of ultrathin CrZr alloy films on polymeric substrates. Scripta Materialia, 2012, 67, 356-359.	5.2	3
67	Cleaning Dirty Surfaces: A Three-Body Problem. ACS Applied Materials & Interfaces, 2016, 8, 18534-18539.	8.0	3
68	Chemically Heterogeneous Nanowrinkling of Polymer Surfaces Induced by Low-Energy Cluster Implantation. Journal of Physical Chemistry C, 2019, 123, 13330-13336.	3.1	3
69	Anderson-like localization in ultrathin nanocomposite alloy films on polymeric substrates. Scripta Materialia, 2012, 67, 866-869.	5.2	2
70	Degradation and Gelation during Plasma Synthesis of Nanoparticles in Ionic Liquids. Journal of Physical Chemistry C, 2017, 121, 6349-6356.	3.1	2
71	Plasma gas aggregation cluster source: Influence of gas inlet configuration and total surface area on the heterogeneous aggregation of silicon clusters. Surface and Coatings Technology, 2019, 364, 1-6.	4.8	2
72	Large Area Nanostructured Arrays: Optical Properties of Metallic Nanotubes. ACS Applied Materials & Interfaces, 2013, 5, 3937-3942.	8.0	1

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73	Electroactive Polymers Prepared By Vapour Phase Polymerisation. ECS Meeting Abstracts, 2015, , .	0.0	0